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| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | | |
| EXAMINER | | | | |
| STULTZ, JESSICA T | | | | |
| ART UNIT | | PAPER NUMBER | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/563,322

Applicant(s)

GIRON ET AL.

Examiner

JESSICA T. STULTZ

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-18 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-850)
Paper No(s)/Mail Date 010406, 032906, 020509
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the date is improper for PCT/FR/2004/001774 on page 1 of the Oath. Specifically, "307 July 2004" should be "07 July 2004".

Claim Objections

Claims 1, 6-7, and 14 objected to because of the following informalities: claim 1, line 5, "wherein the said stack being placed" should be "wherein said stack is placed"; claim 6, line 2, "to claim 1" should be "to claim 4"; claim 7, line 2, "to claim 1" should be "to claim 4" and one of the periods should be deleted from the end of the claim; claim 14, line 2, "to claim 1" should be "to claim 13". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 11, 15, and 17 (and therefore dependent claims 2-4, 6-10, 12, 14-15, and 18) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "wherein the stack...at least one polymer film, having a percentage shrinkage between 0.6 and 2.0%" is vague and indefinite since it is not clear whether the shrinkage is referring to the stack of layers, the polymer film or the combination thereof. Based on the specification, the assumed meaning for purposes of examination is "wherein the stack...at least one polymer film, specifically wherein the at least one polymer film has a percentage shrinkage between 0.6 to 2.0%". Additionally it is not clear what the limitation "percentage shrinkage" places on the claim since it is not clear what conditions the device is in when the shrinkage is measured, specifically it is not clear if the shrinkage would be caused by

temperature, pressure, environmental, or other conditions that affect the device. For purposes of examination, it is assumed that the shrinkage is due to any condition of the device.

Regarding claim 5 and 17, the phrase "a complexity value F" is vague and indefinite since it is not claimed how F is calculated and what factors affect the complexity value. Additionally, the values H, C, and Z are not defined in the specification on pages 6-7 and therefore it is not clear what factors affect the complexity value or how it is determined. For purposes of examination it is assumed that the claims refer to a windscreen having a complex non-planar surface.

Regarding claim 11, the phrase "one transparent, plain or curved, clear or bulk-tinted substrate, polygonal in shape, or at least partly curved" is vague and indefinite since it is not clear the intended limitation of this claim. Specifically it is not clear is the substrate is transparent, clear, or bulk-tinted and if the substrate is plain, curved, polygonal, at least partly curved. For purposes of examination the assumed meaning is "at least one transparent and at least partly curved substrate".

Regarding claim 15, the phrase "which incorporates another functionality" is vague and indefinite since it is not clear what limitation this places on the claim. For purposes of examination the assumed meaning is "which acts as a window and transmits or reflects light".

Claim 2-4, 6-10, 12-14, and 16-18 are rejected since they inherit the indefiniteness of the claims from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al US 4,773,741, herein referred to as Inaba '741, in view of Ojeda US 5,981,076, herein referred to as Ojeda '076.

Regarding claim 1, Inaba '741 discloses an electrically controllable device having variable optical/energy properties in transmission or in reflection (Abstract and Column 6, lines 40-68, wherein the device is a display device and therefore has variable transmittance, Figure 4), comprising at least one carrier substrate (20) provided with a stack of electrochromically functional layers (14, 18, 24), including at least two electrochromic active layers (14, 24) separated by an electrolyte (18), wherein said stack is placed between a lower current lead (22) and an upper current lead (12), wherein the lower current lead is positioned nearest to the carrier substrate and the upper current lead is positioned furthest from the substrate (Figure 4), and wherein the stack of functional layers (14, 18, 24) is joined to at least one polymer film (Column 5, line 21-Column 6, line 20, wherein the polymer film comprises polyethylene sheets 34 and 36, Figure 4), but does not specifically disclose that the at least one polymer film has a percentage shrinkage between 0.6 and 2.0%. In the same field of endeavor of electro optic devices (Abstract), Ojeda '076 teaches of using at least one polymer film, specifically PMMA or PET films, with a percentage shrinkage between 0.6 and 2.0% (Figure 4, Column 9, line 36-Column 10, line 3). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the polymer film of Inaba '741 to have a percentage shrinkage

between 0.6 and 2.0% as taught by Ojeda '076 for the purpose of providing UV protection and resistance to outdoor devices (Column 1, line 6-8 and Column 3, lines 15-28).

Regarding claim 2, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further discloses that the polymer film birefringent dielectric multilayer film (Column 9, line 36-Column 10, line 3) suitable for reflecting at least 50% of the light within a spectral band of at least 100 nm (Figure 5).

Regarding claims 3-4, 6-7, 15, and 18, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, but do not specifically disclose that the device comprises one of a vehicle sunroof, which can be actuated autonomously, or a vehicle side window or a rear window, a windscreen or a portion of a windscreen, the top part of a windscreen, the central part of the windscreen, with the aid of automated control of its power supply using at least one camera and/or at least one light sensor, or is in the form of one or more bands along the outline of the windscreen. However, it is well known in the art of electrochromic devices that these devices are used in one of a vehicle sunroof, which can be actuated autonomously, or a vehicle side window or a rear window, a windscreen or a portion of a windscreen, the top part of a windscreen, the central part of the windscreen, with the aid of automated control of its power supply using at least one camera and/or at least one light sensor, or is in the form of one or more bands along the outline of the windscreen. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the electrochromic device to be in one of the claimed devices for the purpose of blocking unwanted light from a user by reflecting/transmitting different wavelengths of light.

Regarding claims 5, 11, and 17, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Inaba '741 further discloses that the substrate is transparent (Column 4, line 1) but do not specifically disclose that device comprise complex non-planar, i.e. curved surfaces. However, it has been held that that a mere change in the shape of a device would have been obvious absent persuasive evidence that the claimed configuration is significant, which is the case in the instant application, since there is no evidence that the shape of the device is significant to the invention. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the device of Inaba '741 and Ojeda '076 to comprise a complex non-planar surface for the purpose of providing curved outside surfaces that provide at least some vision correction to the user.

Regarding claim 8, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the device comprises one of graphical and/or alphanumeric data display panel, glazing for buildings, a rearview mirror, an aircraft cabin window or windscreen, or a skylight (Column 8, lines 14-48).

Regarding claim 9, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the device comprises one of interior or exterior glazing for buildings; a shop showcase or countertop, which may be curved; glazing for the protection of an object of the painting type; a computer antidazzle screen; or glass furniture (Column 8, lines 14-48).

Regarding claim 10, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Inaba '741 further discloses that the device operates in transmission or in reflection

(Abstract and Column 6, lines 40-68, wherein the device is a display device and therefore has variable transmittance and thereby reflectance, Figure 4).

Regarding claim 16, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the percentage shrinkage of the polymer film is between 0.8 and 1.5% (Figure 4).

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al US 4,773,741, herein referred to as Inaba '741, in view of Ojeda '076, as applied to independent claim 1 above, and further in view of Agrawal US 7,300,166, herein referred to as Agrawal '166.

Regarding claims 12-14, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, but do not specifically disclose that the device comprises an opaque or opacified substrate or wherein an electronic conductivity of at least one of the active layers is sufficient for replacing the conducting layers with a grid of wires, specifically wherein the conducting wires increase the conductivity of the active layers, in order to guarantee coloration uniformity. In the same field of endeavor of electrochromic devices, Agrawal '166 teaches of a device comprising an opaque or opacified substrate (Column 35, lines 30-59) wherein an electronic conductivity of at least one of the active layers is sufficient for replacing the conducting layers with a grid of wires, specifically wherein the conducting wires increase the conductivity of the active layers, in order to guarantee coloration uniformity (Column 16, line 49-Column 17, line 10 and Column 18, line 38-Column 19, line 18). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teaching of Agrawal '166 with the device of Inaba '741 and Ojeda '076 for the purpose of providing improved electro optic

performance and to provide mirrors that provide color in both day and night (Abstract and Column 3, lines 53-64).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Polak Us 4,573,768, Gillet US 5,240,646, Fix US 6,466,298, and Green US 5,598,293 are cited since they disclose electrochromic devices comprising polymer layers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA T. STULTZ whose telephone number is (571)272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jessica T Stultz
Primary Examiner
Art Unit 2873

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